BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvement to Approach Road to DWCC and Bio Plant in Singapura in Ward No. 11 (Kuvempunagar), Vidyaranyapura sub Division.

Estimated Cost : Rs. 34.99 Lakhs

Head of Account : P-3112

Job Code: 011-18-000036

Name of Agency: Executive engineer, KRIDL, # 280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajainagara, Bangalore - 10.

Work order No: BBMP/EE/BTP/WO/145/2017-18 D: 26.03.2018.

Measurements Recarded on :

Sl No	Description of item	Unit	No	L	B1	B2	Av. B	D	Qty	Rate	Amount
1	Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary soil** involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.										
	Qty as per Premeasurement Recorded vide E-MB Page No. 1 & 2 is								**458.20**	86.92	**39827.00**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3)										
	Qty as per Premeasurement Recorded vide E-MB Page No. 2 is								**513.00**	80.56	**41327.00**
3	Providing granite slabs of selected quality roughly dressed havinf a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete										
	For New BS Slab Drain		1	30.00				1.35	40.50		
	Kanshiramnagara main Road		1	30.00				1.35	40.50		
			1	30.00				1.35	40.50		
			1	10.40				1.35	14.04		
								Total Qty =	**135.54**		
								Qty Limited to =	**135.00**	825.74	**111475.00**
4	Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.										
	Qty as per Premeasurement Recorded vide E-MB Page No. 2 is								**38.37**	5159.02	**197952.00**
5	Providing and constructing granite / trap / basalt size stone masonry in **foundation with cement mortar 1:6, stone** hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.										
	Qty as per Premeasurement Recorded vide E-MB Page No. 3 is								**28.98**	4438.22	**128620.00**
6	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6**, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.										
	near DWCC Compound Wall		1	30.00	0.45			0.45	6.08		
			1	20.30	0.45			0.45	4.11		
								Total Qty =	**10.19**		
								Qty Limited to =	**10.13**	5305.30	**53743.00**

Assistant Engineer

Assistant Executive Engineer,
Byatarayanapura Sub-division
KRIDL, BBMP, Bangalore

Assistant Executive Engineer

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BBMP, Bangalore - 97

Sl No	Description of item	Unit	No	L	B1	B2	Av. B	D	Qty	Rate	Amount
7	Providing ruled pointing to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications										
	near DWCC Compound Wall		2	30.00				0.45	27.00		
			2	20.30				0.45	18.27		
	Culvert		2	6.00				0.90	10.80		
								Total Qty =	**56.07**		
								Qty Limited to =	**55.80**	103.88	**5797.00**
8	Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete										
	near DWCC Compound Wall		1	30.00	0.45			0.10	1.35		
			1	20.30	0.45			0.10	0.91		
	Culvert		1	6.00	1.80			0.10	1.08		
	Ramp		2	6.00	1.00			0.15	1.80		
								Total Qty =	**5.14**		
								Qty Limited to =	**5.13**	5767.46	**29587.00**
9	Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications.										
	near DWCC Compound Wall		1	30.00				1.50	45.00		
			1	20.30				1.50	30.45		
								Total Qty =	**75.45**		
								Qty Limited to =	**75.00**	993.22	**74492.00**
10	Providing 18mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.										
	near DWCC Compound Wall		2	30.00				1.60	96.00		
			2	20.30				1.60	64.96		
								Total Qty =	**160.96**		
								Qty Limited to =	**160.00**	103.88	**16621.00**
11	Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - with primer.										
				Qty Vide Item No. 10					**160.00**	89.04	**14247.00**
12	Providing and laying **cement concrete** using 20mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete for RCC works laid in 15 cm thick layers and well compacted including vibrating curing etc., with all lead and lift etc., complete. (exculsive of cost of steel and fabrication charges) - **Ready mixed Cement concrete for Beams, Staircase and Roof with M-20**										
	CC Concrete in front of DWCC		1	30.00	15.00			0.15	67.50		
									67.50	6231.74	**420642.00**
13	Providing **precast slab of 250mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc.,complete as per the direction of engineer in charge- Data rate										
	culvert deck slab		1	6.00	1.80				10.80		
									10.80	5125.00	**55350.00**

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Sl No	Description of item	Unit	No	L	B1	B2	Av. B	D	Qty	Rate	Amount
14	Providing and fixing M.S. Gate as per Chief Architect Drawing, using 50mm x 50mm 14 guage M.S. hollow pipe frame work bent to ornamental shape as shown in the drawing and 35mm x 6mm and 16 x 16mm Square rods for verticals alternatively spaced at 4cms c/c in two halves and 40mmx6mm M.S. flats for horizontal member and at the top cast iron spikes are provided at alternate vertical members asshown in the drawing etc., complete. All the steel surface should be thoroughly cleaned free of rust and painted with anti corrosive paint (shop paint) etc., complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, with lead and lift, loading and unloading charges, etc., complete as per										
			2	2.00	1.80				7.20		
									7.20	3110.04	**22392.00**
15	KSRRB 300-47. Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications.										
	Qty as per Premeasurement Recorded vide E-MB Page No. 3 is								**2304.13**	26.50	**61059.00**
16	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.										
	Qty as per Premeasurement Recorded vide E-MB Page No. 4 is								**576.13**	1768.08	**1018644.00**
17	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.										
	Qty as per Premeasurement Recorded vide E-MB Page No. 4 is								**2304.50**	27.56	**63512.00**
18	Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen**										
	Kanshiramanagara main Road		1	30.00	6.30	6.30	6.30	0.04	7.56		
			1	30.00	6.30	5.60	5.95	0.04	7.14		
			1	30.00	5.60	6.20	5.90	0.04	7.08		
			1	30.00	6.20	6.50	6.35	0.04	7.62		
			1	30.00	6.50	6.40	6.45	0.04	7.74		
			1	30.00	6.40	6.50	6.45	0.04	7.74		
			1	30.00	6.50	6.40	6.45	0.04	7.74		
			1	30.00	6.40	6.20	6.30	0.04	7.56		
			1	30.00	6.20	6.00	6.10	0.04	7.32		
			1	30.00	6.00	6.70	6.35	0.04	7.62		
			1	32.50	6.70	6.80	6.75	0.04	8.78		
			1	30.00	5.70	5.40	5.55	0.04	6.66		
			1	10.00	5.40	5.60	5.50	0.04	2.20		
									Total Qty =	**92.76**	
									Qty Limited to =	**92.18**	8118.54	**748367.00**
19	**Lead for Disposal of Debris** shall be payable at carage rates by Mechanical means inlcuding loading and unloading. **From 0.00 to 11.90 Km**										
					Qty. Vide Item No. 1				**458.20**	104.37	**47822.00**
	Sub Total										**3151476.00**
	KRIDL Charges @ 10 %										**315148.00**
	Labour Cess @ 1%										**31515.00**
										Total	**3498139.00**

10/01/2020
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